

**REPORT ON INSPECTION CARRIED OUT BY THE TEAM
IN COMPLIANCE OF NGT ORDER DATED JANUARY 20, 2015**

1.0 Background:

Hon'ble NGT in M.A. No. 875 of 2014 and M.A. No. 879 of 2014 in O.A. no. 196 of 2014 and O.A. no. 200 of 2014 (Civil WP No. 3727 of 1985) , in the matter of Krishna Kant Singh v/s M/s Hindustan Cocacola Beverages Pvt. Ltd., Mehdiganj, Rajatalab, Varanasi and M/s M.C. Mehta V/s Union of India and others **directed:**

"The inspection of this entire Industrial cluster by UPPCB, representative of the CPCB, representative of the MoEF and a representative of the National Ganga River Basin Authority to submit a Report to the Tribunal on the next date of hearing as to which is the most effective way of preventing and controlling the pollution of river Ganga at least from this industrial cluster presently. This team shall collect effluent that is being discharged into the River Ganga, analyse the same and submit a Report before the tribunal on the next date of hearing.

This Committee shall also identify the drains which are around and into which all the 700 tannery units are discharging their effluent and how they joining River Ganga. The report will also identify as to whether the entire effluent as a matter of fact is being brought to CETP, if yes, how?"

In compliance to above orders five member team comprising of Dr. Amit K. Gupta, Dy. Director, MoEF & CC, Shri R. Ramchandran, Expert, NMCG, Dr. S.K. Gupta, Scientist 'D', NMCG, New Delhi, Shri P.K.Mishra, Zonal Officer, CPCB, Dr. P.C. Sharma, CEO, UPPCB along with the officers of CPCB and UPPCB visited Kanpur on January 27, 2015.

2.0 Approach/ Methodology /Scope of Investigation

Looking into the time allotted to the committee for submission of report & on interaction with the members, it was agreed to hold the meeting followed by required inspection. After discussion, the team has decided to restrict scope of investigation on following aspects:

- 2.1 Status/ Performance of CETP, Jajmau, Kanpur
- 2.2 Status/Performance of STP, Jajmau, Kanpur
- 2.3 Status/ Performance of PETP, Jajmau, Kanpur

- 2.4 Status of Hazardous Sludge Handling and disposal in Jajmau, Kanpur
- 2.5 Status of Sewage Pumping stations
- 2.6 Identified the drains in Jajmau, Kanpur area

The reconnaissance survey of Jajmau area including disposal area / irrigation channel of treated waste water, the areas where the glue manufacturing/ bio fertilizer activity is conducted in open area near the Bank of River, was also performed.

The team interacted with the representative of Jal Nigam, Tannery and the local residents. The samples were also collected by the team from the following locations-

- 1- CETP-: Inlet and Outlet
- 2- Irrigation channel- : Main irrigation channel and spillage of channel which goes to river Ganga.
- 3- Drains -: Drains i.e. Wajidpur drain, Buriyaghat drain near PS 4 etc. through which industrial waste water meeting to river Ganga.
- 4- Industrial units-: Outlet of PETP of M/s Farzana Tanners 406/377 D, Asharfabad, Jajmau, Kanpur.

Characteristics/ Analysis results of the sample are under process and shall be submitted shortly.

3.0 OBSERVATIONS

3.1 Jajmau cluster is located on the right bank of river Ganga on north eastern border of Kanpur city. There are 400 tanneries in the Cluster. Most of the tanneries are chrome tanning with varying scale of operations. Details of tanneries in Kanpur are as below:

Total Nos.	:	402	<i>WPP'</i>
• In Jajmau Cluster	:	400	
• In other parts of city	:	02	

Jajmau Cluster

Break-up (no.)

• Large >300 hide per day	:	06
• Medium 200-300 hide per day	:	08
• Small <200 hide per day	:	386
• Closed	:	77

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- Operational : 323
- Wet process and PETP estd. : 323

Break-up (Job)

- Chrome tanning : 211
- Others (incl veg., split, board) : 189

Break-up (Chrome tanning)

- Individual Chrome Recovery Unit (CRU) Established : 141 (Independent CRU:119 (Independent and CCRP-members : 22
- Members Contracted for Common chrome Recovery Plant (CCRP) : 61
- Dismantled Unit not operating : 06
- Closed by board & do not have CRP : 01
- Self-closed not having CRP : 02

Other parts of Kanpur city

- Operational : 02
- Govt. owned (OEF) : 01
- Private (Shivrajpur) : 01

(*Note : Operational status given above is dynamic and subject to change)

- 3.2 The Jajmau area of Kanpur has 04 nos. of major drains. The drains mainly carry storm water as well as industrial effluent & join the River Ganga.
- 3.3 Out of 410 MLD domestic sewage presently generated in Kanpur, only 162 MLD sewage treatment facility is available at Kanpur.
- 3.4 The 5 MLD STP, 130 MLD STP and 36 MLD CETP were found operational.
- 3.5 The 36 MLD CETP is designed for 9 MLD tannery wastewater on the basis that 9 MLD tannery wastewater will be mixed with 27 MLD sewage to make the tannery wastewater more amenable to biological treatment and the 36 MLD mixed wastewater will be treated in the plant. However, input flow for 36 MLD CETP was found different from the designed provisions.

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- 3.6 The CETP was designed for only 9 MLD tanneries effluent considering the flow at the time of CETP design and tanneries were 175 in number at that time. However, over the time this aspect was somehow neglected and more tanneries were allowed which has increased the number of effluent generating tanneries to 350 (402 minus 26 tanneries dismantled and 26 having dry process) and phenomenal increase in generation of waste water to 26 MLD. Higher generation and concomitant receipt of higher quantum of tannery wastewater in the Conveyance Network of 36 MLD CETP results in a situation wherein a cumulative 26 MLD tannery wastewater is received at different pumping stations of the network, out of which 13.5 MLD is sent to 36 MLD CETP for treatment and the rest 12.5 MLD is discharged as untreated wastewater to river Ganga.
- 3.7 The trunk sewer (90 inch trunk sewer) meant to carry sewage from northern area of Kanpur city and convey it to Central Sewage Pumping Station (CSPS) at Jajmau, was found partially collapsed at Chabiley purwa appx. 1 km before Jajmau. The collapsed structure of the trunk sewer has resulted into lower sewage flow and discharge of untreated sewage at different locations in and around Chabiley purwa.
- 3.8 The current state of the Trunk Sewer has adversely affected its sewage carrying capacity due to which 72 MLD sewage is received at the CSPS as against 170 MLD as per its designed capacity. The sewage quantity over and above 72 MLD finds its way as untreated sewage reaching river Ganga through defined channel (Dapka drain) and several undefined routes
- 3.9 It was noted that unutilized / excess waste water from irrigation canal applied on agricultural land reaches river Ganga in and around village Shekhpur.
- 3.10 The inbuilt provision of gas collection and utilizing it to generate power is currently lying defunct has to be made operational. This shall improve overall treatment economics by substituting use of conventional power by gas-generated power.
- 3.11 Pieces of flesh, hides and such other tannery process waste were observed at the STPs and tannery wastewater stream in 36 MLD CETP. While reason for such observation in STPs is discharge of untreated tannery waste to sewer; in tannery wastewater stream it is mainly due to poor operation of Primary treatment plants at the individual tanneries. A similar observation was also noted at individual

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pumping stations (PS-1,2,3 & 4). The overall Housekeeping in the unit as well as around the Jajmau Clauster is unsatisfactory.

3.12 The illegal discharge of industrial wastewater into storm water drains could be from unauthorised tanneries as well as from authorised ones.

4.0 RECOMMENDATIONS

4.1 Time bound action plan for treatment of 100% waste water generated along with required sewerage system shall be provided.

4.2 Up gradation of the existing Kanpur CEPT is needed for complying the prescribed effluent limits.

The option for upgrading CEPT to ZLD system through adequate tertiary treatment system shall also be enforced.

4.3 The Build, Own & Operate Option / Developing Co-operative Society for management of new/ proposed CETP in place of UP Jal Nigam shall be worked out.

4.4 Preparation of DPR for the proposed CETP shall be expedited including cost sharing - local based equity contribution.

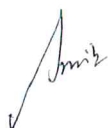
4.5 The Common Chrome Recovery Plant is required to be completely established so as to equip it with 'Drum Drier' provision to further process the recovered chromium and yield a marketable product. A proper define system has to be evolved so that the plant regularly receives spent chrome liquor from the tanneries and recovered chrome is utilized back by the tanneries.

4.6 UPPCB shall place immediate steps to ensure that online effluent monitoring system in all GPIS, CETP & MSTPs are installed & made operated by 31.03.2015 as directed by CPCB.

4.7 UPPCB & local authorities are required to ensure environmental sound management & disposal of flashings. (Process waste from tanneries).

4.8 Immediate action to close down all illegal operators/activities of Jajmau, Kanpur

4.9 The local administration is required to take immediate action on the establishment of glue manufacturer units/bio fertilizer units, mostly











- operated with unauthorised landholding, power connection & absorption of ground water on the Bank of River Ganga.
- 4.10 Strict Vigilance enforcement & compliance by industries to be enforced by the UPPCB.
- 4.11 To prevent any possibility of further Ground water/ River pollution, indiscriminate dumped Hazardous solid waste need to be lifted & sent to TSDF (Treatment storage and disposal facility).
- 4.12 Excess flow of tannery wastewater reaching pumping stations needs immediate attention as it finds way to river Ganga as highly polluted untreated tannery waste water. The immediate attention is required to restrict the generation of wastewater from tanneries. UPPCB is required to identify unauthorised tanneries and take appropriate action. Further, tanneries in general are required to ensure wastewater metering and minimization measures and till such time it is achieved and augmentation in pumping and associated treatment capacity is made, an appropriate blanket restriction on excess production may be imposed on all authorized tanneries.
- 4.13 The UPPCB should strengthen its enforcement and monitoring mechanism to ensure that Hazardous Solid Waste generated from the industries, CETP, shall be properly stored, disposed off as per provision of Hazardous Waste (Handling & Management) Rules and not dumped in the city or along the River /Road.
- 4.14 Strict action needs to be taken against the defaulting units such as operation without consent orders/ authorization of hazardous waste.
- 4.15 Adequate nos. of Real Time Water Quality Monitoring Station (RTWQMS) shall be set up in major drain and up-stream and at down-stream of River Ganga on "Polluter Pays Principle".
- 4.16 Industrial activity and associated operation in the region needs to be monitored very closely for ensuring better compliance with the prescribed pollution Control Standard. Local administration under the chairmanship of DM can monitor the implementation of action plan on quarterly basis and also take necessary corrective measures.
- 4.17 The irrigation channel carrying treated wastewater from all the three treatment plants needs to be strengthened urgently and the work of modification and lining of the earthen portion be taken up by Nagar Nigam keeping in view the planned sewage treatment capacity. Capacity of the command area irrigated through treated effluent channel be ascertained on the basis that alternate watering should be with other sources of water, and if found insufficient, the channel length / command area should be increased. Nagar Nigam should

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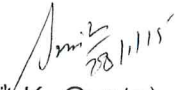
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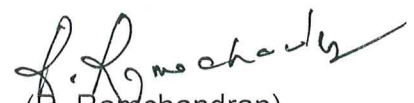
also oversee and regulate the controlled use within the command area. It was noted that unutilized sewage taken from the irrigation channel and applied on agricultural land also reaches river Ganga in and around village Shekhpur.

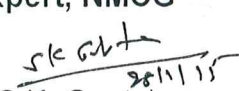
- 4.18 Indiscriminate storage of chrome bearing sludge outside the treatment plant premises, needs immediate attention. A properly lined & covered storage facility for storage of chrome bearing sludge is required to be developed within the plant premises.
- 4.19 All possible measures are required to be taken for expediting repair of collapsed structure of trunk sewer so as to optimize its utilization and eliminate the possibility of discharge of untreated sewage into river Ganga.
- 4.20 The Ganga Pollution Control Unit (U.P. Jal Nigam) is required to prioritize regular cleaning/maintenance of the Conveyance Network, optimize individual plant performance so as to avoid discharge of untreated waste water in to the river Ganga.
- 4.21 Intensive Ground water monitoring on long term basis shall be in place.
- 4.22 Photographs taken during the site visit is also enclosed as photo gallery.


(Amit K. Gupta)
Dy. Director, MoEF & CC


(P.K. Mishra)
Zonal Officer, CPCB


(P.C. Sharma)
CEO, UPPCB


(R. Ramchandran)
Expert, NMCG


(S.K. Gupta)
Scientist 'D', NMCG

Characteristics of wastewater collected from Jajmau area, Kanpur by NGT team on Jan 27, 2015											
S No	Sampling location	pH		Colour (Hz)		Conductivity (μ S/cm)		Chloride (mg/l)		Chemical Oxygen Demand (mg/l)	
		Observed	Standard	Observed	Standard	Observed	Standard	Observed	Standard	Observed	Standard
1	CETP inlet: Tannery waste	9.08	5.5-9.0	200	-	-	-	6658	-	2624	-
2	CETP Inlet: Mixed with domestic waste	7.76	-	150	-	-	-	2516	-	1513	-
3	CETP Outlet	7.64	5.5-9.0	500	-	-	-	1467	600	634	250
4	Inlet of STP 130 MLD	7.20	-	100	-	-	-	241	-	536	-
5	Main trunk of irrigation canal	7.21	-	-	-	2580	-	565	-	232	-
6	Irrigation channel near multi story school Shekhupur, Kanpur	7.12	5.5-9.0	-	-	2796	-	530	-	260	-
7	Irrigation canal near Janne village	7.56	5.5-9.0	-	-	2555	-	516	-	257	-
8	Wajidpur drain near PS-3	8.07	5.5-9.0	-	-	-	-	1500	-	1079	250
9	Buriyaghat drain near PS-4	7.76	5.5-9.0	-	-	-	-	1727	-	1561	250
10	PETP* outlet	5.98	5.5-9.0	-	-	-	-	3729	-	3357	-

*PETP: Primary Effluent Treatment Plant of M/s Farzana Tanners, Jajmau , Kanpur.

**Analysis of the other parameters such as BOD which requires three days incubation and other similar kind of parameter which need more time, are under process and result will be produce in due course of time.

Photo Gallery made by the NGT committee on Jan 27, 2015.

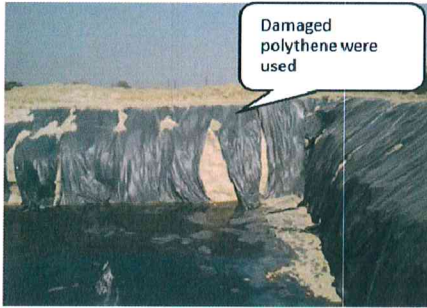
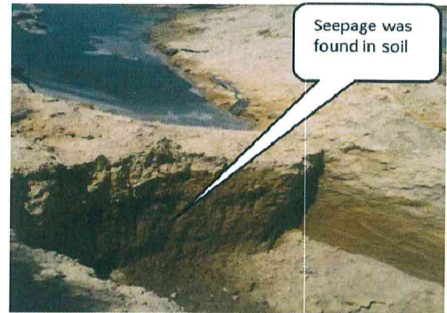
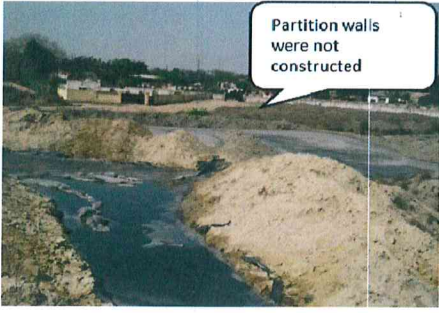
A- Common Effluent Treatment Plant (CETP)



**B- Indiscriminate dumping of Hazardous waste by operator of CETP, i.e.
UP Jal Nigam, Kanpur**



Indiscriminate dumping of solid waste



C-Irrigation Channel made by UP Jal Nigam for disposal of treated wastewater of CETP/STP/CCRU.



Wastewater from the irrigation canal going to River Ganga

D-Drains emanating from urban and industrial area and meeting to River Ganga in Jajmau area.



Pumping Station No 2



E-Common Chrome Recovery Plant

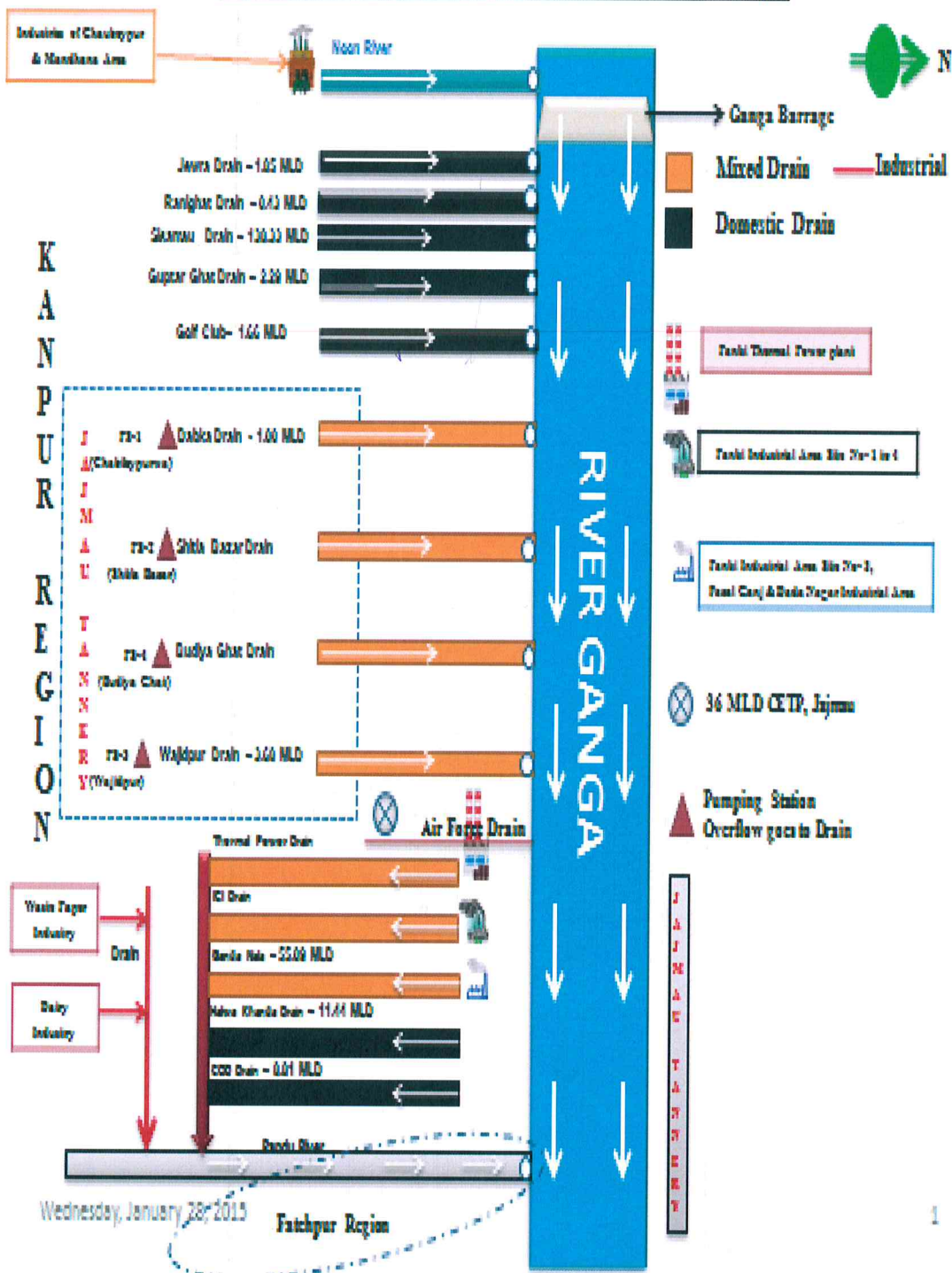


F-Industrial Visit to M/s FarzanaTanners ,Jajmau, Kanpur.



Poor Housekeeping resulting the spread of industrial effluent on the floor

Schematic Flow Diagram of River Ganga, Kanpur Nagar





केन्द्रीय प्रदूषण नियंत्रण बोर्ड
 CENTRAL POLLUTION CONTROL BOARD
 (पर्यावरण एवं वन मंत्रालय, भारत सरकार)
 MINISTRY OF ENVIRONMENT & FORESTS, GOVT OF INDIA

SPEED POST

February 05, 2014

B-29016/04/06/PCI-I/ 5242

To
 The Chairman
 All SPCBs/PCCs (as per list enclosed)

SUB: DIRECTIONS UNDER SECTION 18(1)(b) OF THE WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974 and THE AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981 IN THE MATTER OF POLLUTION CONTROL IN 17 CATEGORY OF HIGHLY POLLUTING INDUSTRIES, CETPs AND COMMON HAZRDOUS WASTE & BIOMEDICAL WASTE INCINERATORS- REGARDING SELF MONITORING OF COMPLIANCE

WHEREAS, under Section 17 of the Water (Prevention & Control of Pollution) Act, 1974, and under Section 17 of the Air (Prevention & Control of Pollution) Act, 1981, one of the function of the State Pollution Control Boards(SPCBs)/Pollution Control Committees(PCCs) is to plan a comprehensive programme for the prevention, control or abatement of pollution of streams, wells and air pollution in the State/Union territory and to secure the execution thereof; and

WHEREAS, under section 16 of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the Central Pollution Control Board (CPCB), constituted under Water (Prevention and Control of Pollution) Act, 1974 is to coordinate activities of the State Pollution Control Boards and Pollution Control Committees and to provide technical assistance and guidance to SPCBs / PCCs; and

WHEREAS, the SPCBs and PCCs are empowered to stipulate standards for discharge of environmental pollutants for various categories of industries and common effluent treatment plants (CETPs) , Common Hazardous waste and Biomedical waste incinerators even more stringent than those notified by the Central Government, under the Environmental (Protection) Act, 1986 and rules framed there under; and

Follow up eels b.

परिपत्रक संख्या: पीसी-1/5242/06/04/29016-2014
 Ministry of Environment & Forests, Govt. of India
 Bhawan, East Arjun Nagar, Delhi - 110032
 Page 1 of 5
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installed and operated by the developers and the industries on 'polluter pays principle' ;and

WHEREAS, some of the SPCBs have already given specific conditions in consent to operate of 17 categories of highly polluting industries/ and Common Hazardous waste and Biomedical waste incinerators to install continuous emission and effluent monitoring systems; and

WHEREAS, it is envisaged in "National Environment Policy- 2006" that to strengthen the testing infrastructure and network for monitoring ambient environmental quality and progressively ensure real-time, and online availability of the monitoring data; and

WHEREAS, CPCB had earlier issued letter dated January 12,2011 to SPCBs /PCCs to direct all the 17 categories of highly polluting industries to install automatic air and water quality stations to monitor the ambient quality; and

WHEREAS ,it is becoming a need and necessity to regulate and minimize inspection of industries on routine basis and instead efforts need to be made to bring self discipline in the industries to exercise self monitoring & compliance and transmit data of effluent and emission compliance to SPCBs/PCCs and to CPCB on continuous basis; and

WHEREAS, there could be some time needed for getting such devices standardised and requiring confidence on data generated but needless to emphasize that efforts towards setting up to continuous monitoring devices is essential; and

WHEREAS, the ground truthing of the values indicated by the online devices need to be done before bringing them in public domain for proper interpretation and such measures need to be taken at the level of SPCBs/PCCs .And whereas for regulatory purposes and for purposes of actions to be taken against non complying industries /facilities, the existing methods of sampling,

- d. To ensure regular maintenance and operation of the online system with temper proof mechanism having facilities for online calibration;
- e. To submit bank guarantee of 25 % of the cost of online monitoring systems (emission and effluent whichever applicable) for ensuring timely installation of online monitoring systems within 90 days from the date of receipt of directions issued by SPCBs/PCCs to the industries;

The SPCB shall install the necessary software and hardware in their headquarter for centralized data collection, analysis and corrective action .The action taken report along with time bound action plan for each industry under the 17 category of industry and CETPs, Common Hazardous waste and Biomedical waste incinerators for installation of online monitoring systems (emission and or effluent) shall be submitted to the Central Pollution Control Board within 120 days from the date of receipt of these directions.

(Susheel Kumar)
Chairman

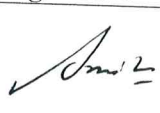
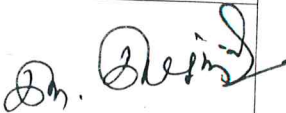

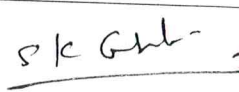
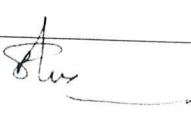
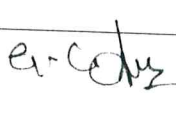
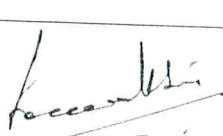
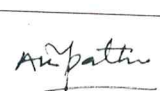
Copy to:

1. The Advisor(CP Division)
Ministry of Environment & Forests
Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi - 110 003
2. I/C PCI-I,II,III and HWMD
3. ~~At~~ Zonal Officer ,CPCB, Lucknow
4. I/c IT Division, CPCB
5. I/c. ESS, CPCB


(Susheel Kumar)

List of Participants

(Ref.: NGT Principal Bench New Delhi M.A no 875 of 2014 and M.A. no 879 of 2014
and original application no 196 of 2014 & 200 of 2014)

S No.	Name	Designation & Organization	Signature
1	Dr Amitk Gupta	Dy Director (S) Ministry of Env, Forest & Climate Change Regional office	
2	R. RAMACHANDRAN	Former Member Secretary TypeCB. presents National Mission For clean Ganga.	
3	P.K. Mishra	Zonal Officer, Central Pollution Control Board, zonal office (North), Lucknow	
4	Dr SK Gupta	Scientist - D NMCG, New Delhi.	
5	Dr. P. C. Sharma.	CEO, UPPCB. Lucknow.	
6	Girish Chandra Arya	AEE UPPCB Kanpur	
7	Dr D.K. Saha	Sci D Zonal office CPCB, Lucknow.	
8	A.K. Tripathi	Senior scientific Assistant	
9			
10			